

**CLAIMS**

What is claimed is:

1. A method for updating a switching table in a switch fabric, comprising:
  - receiving at a switch fabric component one or more status packets from at least one port controller and a plurality of other switch fabric components, wherein the status packets are received without utilizing of a handshaking protocol; and
  - updating a switching table based on the status information of the received status packet, the switching table providing information for identifying the availability of one or more output ports of the switch fabric component for outputting therefrom a datagram being transmitted through the switch fabric.
2. The method of claim 1, wherein the status packets are received via paths dedicated for transmitting the status packets and separate from paths dedicated for transmitting Ethernet packets through the switch fabric system.
3. The method of claim 1, wherein the status packets are received periodically and the switching table is updated in real time.
4. The method of claim 1, further comprising: generating a combined status packet based on the combined status information of the received status packets, and transmitting the combined status packet.
5. The method of claim 4, wherein the combined status packet is transmitted from an outer layer switch fabric component to a middle layer switch fabric component.
6. The method of claim 1, wherein the received status packet is generated from a port controller.

7. The method of claim 1, wherein the received status packet is generated by a switch fabric component.
8. The method of claim 1, wherein a status packet comprises 32 bits of data.
9. A system for updating a switching table in a switch fabric, comprising:
  - logic for receiving at a switch fabric component one or more status packets from at least one port controller and a plurality of other switch fabric components, wherein the status packets are received without utilizing of a handshaking protocol; and
  - logic for updating a switching table based on the status information of the received status packet, the switching table providing information for identifying the availability of one or more output ports of the switch fabric component for outputting therefrom a datagram being transmitted through the switch fabric.
10. The system of claim 9, wherein the status packets are received via paths dedicated for transmitting the status packets and separate from paths dedicated for transmitting Ethernet packets through the switch fabric system.
11. The system of claim 9, wherein the status packets are received periodically and the switching table is updated in real time.
12. The system of claim 9, further comprising logic for generating a combined status packet based on the combined status information of the received status packets, and logic for transmitting the combined status packet.
13. The system of claim 12, wherein the combined status packet is transmitted from an outer layer switch fabric component to a middle layer switch fabric component.
14. The system of claim 9, wherein the received status packet is generated from a port controller.

15. The system of claim 9, wherein the received status packet is generated by a switch fabric component.
16. The system of claim 9, wherein a status packet comprises 32 bits of data.
17. A computer program product for updating a switching table in a switch fabric, comprising:
  - computer code for receiving at a switch fabric component one or status packets from at least one port controller and a plurality of other switch fabric components, wherein the status packets are received without utilizing of a handshaking protocol; and
  - computer code for updating a switching table based on the status information of the received status packet, the switching table providing information for identifying the availability of one or more output ports of the switch fabric component for outputting therefrom a datagram being transmitted through the switch fabric.
18. The computer program product of claim 17, wherein the status packets are received via paths dedicated for transmitting the status packets and separate from paths dedicated for transmitting Ethernet packets through the switch fabric computer program product.
19. The computer program product of claim 9, wherein the status packets are received periodically and the switching table is updated in real time.
20. The computer program product of claim 9, further comprising computer code for generating a combined status packet based on the combined status information of the received status packets, and computer code for transmitting the combined status packet.